WHAT IS CLAIMED IS:

1. A packet processor comprising:

a control unit having a data input path;

at least one encryption unit;

a first authentication unit;

a second authentication unit;

a local data path, independent of the data input path to the control unit, coupling the control unit to each of the encryption and authentication units; and

a second data path from the encryption unit to each authentication unit, including a data path from the first authentication unit to the second authentication unit.

2. A packet processor as recited in claim 1, wherein said data input path of the control unit is coupled to a processor bus and each of said encryption and authentication units comprises a data input path coupled to the processor bus.

3. A packet processor as recited in claim 1, wherein said data input path of the control unit is coupled to a processor bus and each of said encryption and authentication units comprises a data input path to the processor bus and means for reading and writing data on the processor bus.

4. A packet processor as recited in claim 1, wherein said second data path comprises a daisy-chain connection between the encryption and authentication units.

5. A method of processing data packets comprising:

coupling a control unit to a first data path;

receiving first and second data packets in the control unit from the first data path;

providing a plurality of processing units in data communication with the control unit over a second data path, independent of the first data path, said processing units including at least one encryption unit and at least one authentication unit;

providing data of the first data packet from the control unit to one of the processing units, over the second data path;

processing said data from the first data packet with said one of the processing units to provide output data for the first data packet from said one of the processing units;

communicating said output data for the first data packet from said one of the processing units to another of the processing units for further processing; and

providing data from the second data packet to said one of the processing units, while said other processing unit further processes the output data for the first data packet.

6. A method as recited in claim 5, wherein said one of the processing units comprises an encryption unit and said other of said processing units comprises an authentication unit.

7. A method as recited in claim 5, wherein said at least one authentication unit comprises a first and second authentication units.

8. A method as recited in claim 5, wherein said step of communicating the output data from one of the processing units to another of the processing units comprises communicating said output data over a daisy-chain connection between said processing units.

9. A method of processing data in a computer, the method comprising the steps of:

performing encryption on a first data packet; and

after completion of the encryption of the first data packet,

performing authentication of the first data packet, and

performing encryption of a second data packet prior to completion of authentication of the first data packet.

10. The method of claim 9, wherein the authentication is a first authentication, further comprising the step of performing a second authentication on the first data packet of data.

11. The method of claim 10, wherein the first authentication is performed on the encrypted first data packet.

12. The method of claim 10, wherein the first authentication appends data to the encrypted first data packet.

13. The method of claim 12, wherein the second authentication is performed on the encrypted first data packet and the appended data.

14. The method of claim 10, further comprising the step of performing the encryption of the second data packet after beginning the second authentication of the first data packet.

15. A method of processing data in a computer, the method comprising the steps of:

encrypting a first data packet with an encryption module;

authenticating the encrypted first data packet with a first authentication module;

encrypting a second data packet with the encryption module while authenticating the first data packet with the first authentication module; and

authenticating the second data packet with the first authentication module.

16. An apparatus for processing data, comprising:

a computer having a data storage device connected thereto, wherein the data storage device stores a data;

one or more computer programs, performed by the computer, for performing encryption on a first data packet, and, after completion of the encryption of the first data packet, performing authentication of the first data packet, and performing encryption of a second data packet prior to completion of authentication of the first data packet.

17. The apparatus of claim 16, wherein the authentication is a first authentication, further comprising means for performing a second authentication on the first data packet of data.

18. The apparatus of claim 17, wherein the first authentication is performed on the encrypted first data packet.

19. The apparatus of claim 17, wherein the first authentication appends data to the encrypted first data packet.

20. The apparatus of claim 19, wherein the second authentication is performed on the encrypted first data packet and the appended data.

21. The apparatus of claim 17, further comprising the means for performing the encryption of the second data packet after beginning the second authentication of the first data packet.

22. An apparatus for processing data, comprising:

a computer having a data storage device connected thereto, wherein the data storage device stores a data;

one or more computer programs, performed by the computer, for encrypting a first data packet with an encryption module, authenticating the encrypted first data packet with a first authentication module, encrypting a second data packet with the encryption module while authenticating the first data packet with the first authentication module, and authenticating the second data packet with the first authentication module.

23. An article of manufacture comprising a computer program carrier readable by a computer and embodying one or more instructions executable by the computer to perform method steps for processing data, the method comprising the steps of:

performing encryption on a first data packet; and

after completion of the encryption of the first data packet,

performing authentication of the first data packet, and

performing encryption of a second data packet prior to completion of authentication of the first data packet.

24. The article of manufacture of claim 23, wherein the authentication is a first authentication, further comprising the step of performing a second authentication on the first data packet of data.

25. The article of manufacture of claim 24, wherein the first authentication is performed on the encrypted first data packet.

26. The article of manufacture of claim 24, wherein the first authentication appends data to the encrypted first data packet.

27. The article of manufacture of claim 26, wherein the second authentication is performed on the encrypted first data packet and the appended data.

28. The article of manufacture of claim 24, further comprising the step of performing the encryption of the second data packet after beginning the second authentication of the first data packet.

29. An article of manufacture comprising a computer program carrier readable by a computer and embodying one or more instructions executable by the computer to perform method steps for processing data, the method comprising the steps of:

encrypting a first data packet with an encryption module;

authenticating the encrypted first data packet with a first authentication module;

encrypting a second data packet with the encryption module while authenticating the first data packet with the first authentication module; and

authenticating the second data packet with the first authentication module.

30. A method of processing data packets comprising:

coupling a control unit to a first data path;

receiving a first dat packet in the control unit from the first data path;

providing a plurality of processing units in data communication with the control unit over a second data path, independent of the first data path, said processing units including at least one encryption unit and at least one authentication unit;

providing data of the first data packet from the control unit to multiple processing units, over the second data path;

processing said data from the first data packet with said multiple processing units in parallel.

31. A method as recited in claim 30, wherein said plurality of processing units comprises at least one encryption unit and a plurality of authentication units.